ABSTRACT

An improved method for debugging of analog and mixed signal behavioral models during simulation using Newton-Raphson iteration replay. The method

5   according to the invention has substantially modified the prior art solution by limiting the interactive debugging steps in a replay of the last iteration of the accepted timepoints. Using this method, the user only interacts with the simulation during the iteration replay, and only for the accepted solution points. If the user is single stepping through the simulation, the simulator

10   enters interactive mode at each statement during the replay. Similarly, if not single stepping, but a breakpoint has been triggered, the simulator enters the interactive mode at the appropriate statement to honor the breakpoint. While the iteration replay is performed, the system of equations does not need to be solved again. Instead, the solution vector is reinstated from the known

15   solution of the last iteration.